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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/769,691	01/30/2004	Eric Justin Gould Bear	MSFT-3471/304033.02	8609
41505 7590 07/07/2010 WOODCOCK WASHBURN LLP (MICROSOFT CORPORATION) CIRA CENTRE, 12TH FLOOR 2929 ARCH STREET PHILADELPHIA, PA 19104-2891				
			EXAMINER MCDOWELL, JR, MAURICE L.	
			ART UNIT 2628	PAPER NUMBER
			MAIL DATE 07/07/2010	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/769,691

**Applicant(s)**

BEAR ET AL.

**Examiner**

MAURICE MCDOWELL, JR

**Art Unit**

2628

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 April 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6, 9-17, 20-28, 31-39 and 42-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 9-17, 20-28, 31-39, 42-44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ ~~Notice of Informal Patent Application~~
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/26/2010 has been entered.

***Response to Arguments***

2. Applicant's arguments filed 4/26/2010 have been fully considered but they are not persuasive.
3. Applicant argues: The final rejection asserts that Tenhunan, at figures 1a-c and paragraph [0019], discloses automatically logically remapping commands to logical buttons based on the second orientation of images presented on a display. While these sections describe and illustrate remapping keypad cues based on a rotation of the device on which such cues are displayed, the keypads and/or the associated keypad cues are not configured to execute a plurality of command calls. Thus, Tenhunen cannot be said to disclose or suggest configuring a first logical button from among said logical buttons to execute, upon activation of the first logical button, one of a first command call and a second command call at the computing device or remapping the commands to the logical buttons based on the second orientation of the images presented on the display by configuring a second logical button from among said logical buttons to execute, upon activation of the second logical button, one of the first command call and the second command call.

4. Examiner respectfully disagrees: Tenhunen does disclose or suggest configuring a first logical button from among said logical buttons to execute, upon activation of the first logical button, one of a first command call and a second command call at the computing device or remapping the commands to the logical buttons based on the second orientation of the images presented on the display by configuring a second logical button from among said logical buttons to execute, upon activation of the second logical button, one of the first command call and the second command call (see figs. 1a-b and [0019]) (The first logical button '1' for example in fig. 1a is configured upon activation to execute one of a first command call (dial '1') and a second command call (dial '#'); further when the display is turned upside down, the commands to the second logical button '#' are remapped to execute one of a first command call (dial '1') and a second command call (dial '#') based on the second orientation of the images presented on the display (see Tenhunen fig. 1b).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-2, 4-6, 9, 12-13, 15-17, 20, 23-24, 26-28, 31, 34-35, 37-39, 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hinckley et al. Pub. No.: US 2002/0021278 A1 in view of Tenhunen et al. Pub. No.: US 2002/0198029 A1.

7. Regarding claim 1, Hinckley teaches: A method for logically remapping commands to logical buttons of a computing device comprising a display, said logical buttons having associated commands, said method comprising: detecting a change in orientation relative to the display of images presented on the display from a first orientation to a second orientation at the computing device (figs. 10 and 11 see also [0072] [0073]).

8. Hinckley doesn't teach: configuring a first logical button from among said logical buttons to execute, upon activation of the first logical button, one of a first command call and a second command call at the computing device;  
responsive to the detection of the change in orientation relative to the display of the images presented on the display, automatically logically remapping the commands to the logical buttons based on the second orientation of the images presented on the display by configuring a second logical button from among said logical buttons to execute, upon activation of the second logical button, one of the first command call and the second command call.

9. The analogous prior art Tenhunen teaches: configuring a first logical button from among said logical buttons to execute, upon activation of the first logical button, one of a first command call and a second command call at the computing device (figs. 1a-c see also [0019]) (The first logical button is any key and the second logical button is its transposed key for example 1 and # or 0 and 2);  
responsive to the detection of the change in orientation relative to the display of the images presented on the display, automatically logically remapping the commands to the logical buttons based on the second orientation of the images presented on the display by configuring a second logical button from among said logical buttons to execute, upon activation of the second logical

button, one of the first command call and the second command call (figs. 1a-c see also [0019]) for the benefit of to create a mobile station including a keypad, which is easier and more stable to use than previously, especially with one hand, and which can be adapted faster and more simply to different operating situations.

10. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine configuring a first logical button from among said logical buttons to execute, upon activation of the first logical button, one of a first command call and a second command call at the computing device; responsive to the detection of the change in orientation relative to the display of the images presented on the display, automatically logically remapping the commands to the logical buttons based on the second orientation of the images presented on the display by configuring a second logical button from among said logical buttons to execute, upon activation of the second logical button, one of the first command call and the second command call as shown in Tenhunen with Hinckley for the benefit of to create a mobile station including a keypad, which is easier and more stable to use than previously, especially with one hand, and which can be adapted faster and more simply to different operating situations.

11. Regarding claim 2, Hinckley teaches: The method wherein the display is a visual display device (figs. 10 and 11).

12. Regarding claim 4, Hinckley teaches: The method wherein the display is one from the group comprising: a visual display device, an audio display device, and a tactile display device (figs. 10 and 11).

13. Regarding claim 5, Hinckley teaches: The method further comprising detecting a change in orientation of the display at the computing device and, responsive to the detection of the change in orientation of the display, automatically changing the orientation relative to the display of the images presented on the display (figs. 10 and 11 see also [0072] [0073]).

14. Regarding claim 6, Hinckley teaches: The method further comprising detecting a command to change the orientation relative to the display of the images presented on the display from the first orientation to the second orientation at the computing device and, responsive to the detection of the command, automatically changing the orientation relative to the display of the images presented on the display from the first orientation to the second orientation (figs. 10 and 11 see also [0072] [0073]).

15. Regarding claim 9, Tenhunen further teaches: The method wherein, if the computing device is symmetrical both vertically and horizontally, the logical remapping rotates the commands to the logical buttons (figs. 1a-c).

16. Regarding claim 12, Hinckley teaches: A user interface system for logically remapping commands to logical buttons of a computing device having a display, said logical buttons having associated commands, said system comprising; a subsystem for detecting a change in orientation relative to the display of images presented on the display from a first orientation to a second orientation (figs. 10 and 11 see also [0072] [0073]).

17. Hinckley doesn't teach: a subsystem for configuring a first logical button from among the logical buttons to execute, upon activation of the first logical button, one of a first command call and a second command call;

a subsystem for, responsive to the detection of the change in orientation relative to the display of the images presented on the display, automatically logically remapping the commands to the logical buttons based on the second orientation of the display by configuring a second logical button from among the logical buttons to execute, upon activation of the second logical button, one of the first command call and the second command call.

18. The analogous prior art Tenhunen teaches: a subsystem for configuring a first logical button from among the logical buttons to execute, upon activation of the first logical button, one of a first command call and a second command call (figs. 1a-c see also [0019]);

a subsystem for, responsive to the detection of the change in orientation relative to the display of the images presented on the display, automatically logically remapping the commands to the logical buttons based on the second orientation of the display by configuring a second logical button from among the logical buttons to execute, upon activation of the second logical button, one of the first command call and the second command call (figs. 1a-c see also [0019]) for the benefit of to create a mobile station including a keypad, which is easier and more stable to use than previously, especially with one hand, and which can be adapted faster and more simply to different operating situations.

19. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine a subsystem for configuring a first logical button from among the logical buttons to execute, upon activation of the first logical button, one of a first command call and a second command call;

a subsystem for, responsive to the detection of the change in orientation relative to the display of the images presented on the display, automatically logically remapping the commands to the



logical buttons based on the second orientation of the display by configuring a second logical button from among the logical buttons to execute, upon activation of the second logical button, one of the first command call and the second command call as shown in Tenhunen with Hinckley for the benefit of to create a mobile station including a keypad, which is easier and more stable to use than previously, especially with one hand, and which can be adapted faster and more simply to different operating situations.

20. Regarding claim 13, Hinckley teaches: The user interface system wherein the display is a visual display device (figs. 10 and 11).

21. Regarding claim 15, Hinckley teaches: The user interface system wherein the display is one from the group comprising: a visual display device, an audio display device, and a tactile display device (figs. 10 and 11).

22. Regarding claim 16, Hinckley teaches: The user interface system wherein, further comprising a subsystem for detecting a change in orientation of the display, and a subsystem for, responsive to the detection of the change in orientation of the display, automatically changing the orientation relative to the display of the images presented on the display (figs. 10 and 11 see also [0072] [0073]).

23. Regarding claim 17, Hinckley teaches: The user interface system further comprising a subsystem for detecting a command to change the orientation relative to the display of the images presented on the display from the first orientation to the second orientation, and a subsystem for, responsive to the detection of the command, automatically changing the orientation relative to the display of the images presented on the display from the first orientation to the second orientation (figs. 10 and 11 see also [0072] [0073]).

24. Regarding claim 20, Tenhunen further teaches: The user interface system wherein, if the computing device is symmetrical both vertically and horizontally, the logical remapping rotates the commands to the logical buttons (figs. 1a-c).

25. Regarding claim 23, Hinckley teaches: A computer-readable medium having computer-readable instructions for logically remapping commands to logical buttons of a computing device comprising a display, said logical buttons having associated commands, said instructions comprising instructions for: detecting a change in orientation relative to the display of images presented on the display from a first orientation to a second orientation (figs. 10 and 11 see also [0072] [0073]).

26. Hinckley doesn't teach: configuring a first logical button from among the logical buttons to execute, upon activation of the first logical button, one of a first command call and a second command call responsive to the detection of the change in orientation relative to the display of the images presented on the display, automatically logically remapping the commands to the logical buttons based on the second orientation of the display by configuring a second logical button from among the logical buttons to execute, upon activation of the second logical button, one of the first command call and the second command call.

27. The analogous prior art Tenhunen teaches: configuring a first logical button from among the logical buttons to execute, upon activation of the first logical button, one of a first command call and a second command call (figs. 1a-c see also [0019]) responsive to the detection of the change in orientation relative to the display of the images presented on the display, automatically logically remapping the commands to the logical buttons

based on the second orientation of the display by configuring a second logical button from among the logical buttons to execute, upon activation of the second logical button, one of the first command call and the second command call (figs. 1a-c see also [0019]) for the benefit of to create a mobile station including a keypad, which is easier and more stable to use than previously, especially with one hand, and which can be adapted faster and more simply to different operating situations.

28. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine configuring a first logical button from among the logical buttons to execute, upon activation of the first logical button, one of a first command call and a second command call

responsive to the detection of the change in orientation relative to the display of the images presented on the display, automatically logically remapping the commands to the logical buttons based on the second orientation of the display by configuring a second logical button from among the logical buttons to execute, upon activation of the second logical button, one of the first command call and the second command call as shown in Tenhunen with Hinckley for the benefit of to create a mobile station including a keypad, which is easier and more stable to use than previously, especially with one hand, and which can be adapted faster and more simply to different operating situations.

29. Regarding claim 24, Hinckley teaches: The computer-readable medium wherein the display is a visual display device (figs. 10 and 11).

30. Regarding claim 26, Hinckley teaches: The computer-readable medium wherein the display is one from the group comprising: a visual display device, an audio display device, and a tactile display device (figs. 10 and 11).

31. Regarding claim 27, Hinckley teaches: The computer-readable medium wherein the instructions further comprise instructions for detecting a change in orientation of the display and, responsive to the detection of the change in orientation of the display, automatically changing the orientation relative to the display of the images presented on the display (figs. 10 and 11 see also [0072] [0073]).

32. Regarding claim 28, Hinckley teaches: The computer-readable medium wherein the instructions further comprise instructions for detecting a command to change the orientation relative to the display of the images presented on the display from the first orientation to the second orientation and, responsive to the detection of the command, automatically changing the orientation relative to the display of the images presented on the display from the first orientation to the second orientation (figs. 10 and 11 see also [0072] [0073]).

33. Regarding claim 31, Tenhunen further teaches: The computer-readable medium wherein, if the computing device is symmetrical both vertically and horizontally, the logical remapping rotates the commands to the logical buttons (figs. 1a-c).

34. Regarding claim 34, Hinckley teaches: A hardware control device for implementing a method of logically remapping commands to logical buttons of a computing device comprising a display, said logical buttons having associated commands, said computing device further comprising: the component further configured to detect a change in orientation relative to the

display of images presented on the display from a first orientation to a second orientation (figs. 10 and 11 see also [0072] [0073]).

35. Hinckley doesn't teach: a component configured to configure a first logical button from among the logical buttons to execute, upon activation of the first logical button, one of a first command call and a second command call; and

responsive to the detection of the change in orientation relative to the display of the images presented on the display, automatically logically remap the commands to the logical buttons based on the second orientation of the display by configuring a second logical button from among said logical buttons to execute, upon activation of the second logical button, one of the first command call and the second command call.

36. The analogous prior art Tenhunen teaches: a component configured to configure a first logical button from among the logical buttons to execute, upon activation of the first logical button, one of a first command call and a second command call (figs. 1a-c see also [0019]); and responsive to the detection of the change in orientation relative to the display of the images presented on the display, automatically logically remap the commands to the logical buttons based on the second orientation of the display by configuring a second logical button from among said logical buttons to execute, upon activation of the second logical button, one of the first command call and the second command call (figs. 1a-c see also [0019]) for the benefit of to create a mobile station including a keypad, which is easier and more stable to use than previously, especially with one hand, and which can be adapted faster and more simply to different operating situations.

37. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine a component configured to configure a first logical button from among the logical buttons to execute, upon activation of the first logical button, one of a first command call and a second command call; and

responsive to the detection of the change in orientation relative to the display of the images presented on the display, automatically logically remap the commands to the logical buttons based on the second orientation of the display by configuring a second logical button from among said logical buttons to execute, upon activation of the second logical button, one of the first command call and the second command call as shown in Tenhunen with Hinckley for the benefit of to create a mobile station including a keypad, which is easier and more stable to use than previously, especially with one hand, and which can be adapted faster and more simply to different operating situations.

38. Regarding claim 35, Hinckley teaches: The hardware control device wherein the display is a visual display device (figs. 10 and 11).

39. Regarding claim 37, Hinckley teaches: The hardware control device wherein the display is one from the group comprising: a visual display device, an audio display device, and a tactile display device (figs. 10 and 11).

40. Regarding claim 38, Hinckley teaches: The hardware control device wherein, the component is further configured to detect a change in orientation of the display and, responsive to the detection of the change in orientation of the display, automatically changing the orientation relative to the display of the images presented on the display (figs. 10 and 11 see also [0072] [0073]).

41. Regarding claim 39, Hinckley teaches: The hardware control device wherein, the component is further configured to detect a command to change the orientation relative to the display of the images presented on the display from the first orientation to the second orientation and, responsive to the detection of the command, automatically changing the orientation relative to the display of the images presented on the display from the first orientation to the second orientation (figs. 10 and 11 see also [0072] [0073]).

42. Regarding claim 42, Tenhunen further teaches: The hardware control device wherein, if the computing device is symmetrical both vertically and horizontally, the logical remapping rotates the commands to the logical buttons (figs. 1a-c).

43. Claims 10-11, 21-22, 32-33, 43-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hinckley et al. Pub. No.: US 2002/0021278 A1 in view of Tenhunen et al. Pub. No.: US 2002/0198029 A1 further in view of Kfoury et al. Pub. No.: US 2003/0044000 A1.

44. Regarding claim 10, the previous combination of Hinckley and Tenhunen remains as above but doesn't teach: The method wherein, the computing device is symmetrical along a one axis, including but not limited to rocking wheels, super wheels, rocking dogbones, and super dogbones, and for reference purposes the one axis is initially oriented vertically, then the commands are logically remapped to the logical buttons, relative to the first orientation.

45. The analogous prior art Kfoury teaches: The method wherein, the computing device is symmetrical along a one axis, including but not limited to rocking wheels, super wheels, rocking dogbones, and super dogbones, and for reference purposes the one axis is initially oriented vertically, then the commands are logically remapped to the logical buttons, relative to the first orientation (figs. 1-4) for the benefit of best accommodating both right and left hand users.

46. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the computing device is symmetrical along a one axis, including but not limited to rocking wheels, super wheels, rocking dogbones, and super dogbones, and for reference purposes the one axis is initially oriented vertically, then the commands are logically remapped to the logical buttons, relative to the first orientation as shown in Kfoury with the previous combination for the benefit of best accommodating both right and left hand users.

47. Regarding claim 11, Kfoury further teaches: The method wherein: if the images presented on the display are rotated one quarter to the right, the commands for UP and DOWN are transposed (figs. 2 and 4); if the images presented on the display are rotated one half to the right, then the commands for UP and DOWN are transposed, and the commands for PREV and NEXT are transposed (figs. 2 and 3 and 4); and if the images presented on the display are rotated three-quarters to the right, then the commands for PREV and NEXT are transposed (fig. 3).

48. Regarding claim 21, Kfoury further teaches: The user interface system wherein, the computing device is symmetrical along a one axis, including but not limited to rocking wheels, super wheels, rocking dogbones, and super dogbones, and for reference purposes the one axis is initially oriented vertically, then the commands are logically remapped to the logical buttons, relative to the first orientation (figs. 1-4).

49. Regarding claim 22, Kfoury further teaches: The user interface system wherein: if the images presented on the display are rotated one quarter to the right, the commands for UP and DOWN are transposed (figs. 2 and 4); if the images presented on the display are rotated one half to the right, then the commands for UP and DOWN are transposed, and the commands for PREV and NEXT are transposed (figs. 2 and 3 and 4); and if the images presented on the display are



rotated three-quarters to the right, then the commands for PREV and NEXT are transposed (fig. 3).

50. Regarding claim 32, Kfoury further teaches: The computer-readable medium wherein, the computing device is symmetrical along a one axis, including but not limited to rocking wheels, super wheels, rocking dogbones, and super dogbones, and for reference purposes the one axis is initially oriented vertically, then the commands are logically remapped to the logical buttons, relative to the first orientation (figs. 1-4).

51. Regarding claim 33, Kfoury further teaches: The computer-readable medium wherein: if the images presented on the display are rotated one quarter to the right, the commands for UP and DOWN are transposed (figs. 2 and 4); if the images presented on the display are rotated one half to the right, then the commands for UP and DOWN are transposed, and the commands for PREV and NEXT are transposed (figs. 2-4); and if the images presented on the display are rotated three-quarters to the right, then the commands for PREV and NEXT are transposed (fig. 3).

52. Regarding claim 43, Kfoury further teaches: The hardware control device wherein, the computing device is symmetrical along a one axis, including but not limited to rocking wheels, super wheels, rocking dogbones, and super dogbones, and for reference purposes the one axis is initially oriented vertically, then the commands are logically remapped to the logical buttons, relative to the first orientation (figs. 1-4).

53. Regarding claim 44, Kfoury further teaches: The hardware control device wherein: if the images presented on the display are rotated one quarter to the right, the commands for UP and DOWN are transposed (figs. 2 and 4); if the images presented on the display are rotated one half

to the right, then the commands for UP and DOWN are transposed, and the commands for PREV and NEXT are transposed (figs. 2-4); and if the images presented on the display are rotated three-quarters to the right, then the commands for PREV and NEXT are transposed (fig. 3).

54. Claims 3, 14, 25, 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hinckley et al. Pub. No.: US 2002/0021278 A1 in view of Tenhunen et al. Pub. No.: US 2002/0198029 A1 further in view of Kfoury et al. Pub. No.: US 2003/0044000 A1 further in view of Pinder et al. Patent No.: 5,758,267.

55. Regarding claim 3, the previous combination of Hinckley and Tenhunen and Kfoury remains as above but doesn't teach: The method wherein the display is a non-visual display device.

56. The analogous prior art Pinder teaches: The method wherein the display is a non-visual display device (fig. 1) for the benefit of enhancing the functionality of switches or buttons without adding additional buttons and without creating a scheme that is not intuitive to the user.

57. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the display is a non-visual display device as shown in Pinder with the previous combination for the benefit of enhancing the functionality of switches or buttons without adding additional buttons and without creating a scheme that is not intuitive to the user.

58. Regarding claim 14, Pinder further teaches: The user interface system wherein the display is a non-visual display device (fig. 1).

59. Regarding claim 25, Pinder further teaches: The computer-readable medium wherein the display is a non-visual display device (fig. 1).

60. Regarding claim 36, Pinder further teaches: The hardware control device wherein the display is a non-visual display device (fig. 1).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MAURICE MCDOWELL, JR whose telephone number is (571)270-3707. The examiner can normally be reached on Mon-Friday 7:30am - 5:00pm Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xiao Wu can be reached on 571--272-7761. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MM

/XIAO M. WU/  
Supervisory Patent Examiner, Art Unit 2628